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ABSTRACT

This publication focuses on four school adaptive reuse projects--in Phoenix, Arizona; Wake County, North Carolina; Pomona, California; and Trenton, New Jersey. Together, the projects illustrate the many benefits of adaptive reuse and show that mainstream school districts can meet the regulatory and political challenges necessary to make such projects succeed, providing new schools when and where they are needed and transforming unused buildings into spaces that serve the diverse needs of students, parents, educators, and communities. While geographically and demographically distinct, the four projects share certain similarities: an immediate need to provide more school space existed; long construction lead times and state-mandated minimum site sizes were not available; non-educational buildings existed within the school district that could be transformed affordably; and the school district and the community possessed people who could recognize adaptive reuse opportunities and follow through with a project that called for innovation, good management, and political savvy. (Contains 18 references.) (EV)

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Creating Schools and Strengthening Communities through Adaptive Reuse

National Clearinghouse for Educational Facilities

Stephen Spector
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Converting underused and vacant buildings into schools isn't a new idea. Pre-schools, private schools, charter schools, and community colleges have long employed adaptive reuse to meet their facility needs, turning office buildings, factories, churches, stores, mansions, and even military buildings into schools.

As noted by Ben Graves, the respected educational facilities planner and writer, even mainstream school districts have turned to adaptive reuse in periods of rapidly growing enrollments.

> In the late 1960s and early 1970s, school districts could not keep up with growing school populations. School districts in all parts of the country went prospecting for space and found it in unused factories, supermarkets, and shopping centers, practically any place (including a public bathhouse in Boston). Often the school district was able to acquire this real estate for a relatively low price, and the cost of renovation was usually less, often dramatically less, than site acquisition and construction of new buildings. But the most important factor was getting needed space in a hurry (Graves 1993).

Despite these precedents, adaptive reuse is not common practice in most public school districts. The desire to start with a clean slate, the unknowns associated with renovating older buildings, the need to meet strict school health and safety regulations, and state-mandated minimum school acreage requirements have limited adaptive reuse's popularity.

But budget cutbacks, school overcrowding, enrollment spikes, lack of affordable land, inadequate capital funding, and attempts to control sprawl and promote "smart growth" are changing the picture. Schools and communities are realizing that adaptive reuse can bring more than just good new schools. Reuse can create valuable community resources from unproductive property, substantially reduce land acquisition and construction costs, revitalize existing neighborhoods, and help control sprawl.

Adaptive reuse needn't be an emergency measure or a last resort. Some reuse projects stem from unexpected real estate opportunities, others from conscious decisions written into a school district's master plan or from joint collaboration with local government leaders and planners.

This publication focuses on four adaptive reuse projects—in Phoenix, Arizona; Wake County, North Carolina; Pomona, California; and Trenton, New Jersey. Together, the projects illustrate the many benefits of adaptive reuse and show that mainstream school districts can meet the regulatory and political challenges necessary to make such projects succeed, providing new schools when and where they are needed and transforming unused buildings into spaces that serve the diverse needs of students, parents, educators, and communities.

While geographically and demographically distinct, the four projects share certain similarities:

- An immediate need to provide more school space existed.
- Long construction lead times and state-mandated minimum site sizes were not available.
- Non-educational buildings existed within the school district that could be transformed affordably.
- The school district and the community possessed people who could recognize adaptive reuse opportunities and follow through with a project that called for innovation, good management, and political savvy.

Not all buildings can or should be converted, however. Prakash Nair and Steven Bingler, architects with extensive experience in school design, point out two fundamental qualities necessary for a proposed adaptive reuse project:

Matching Vision with Reality

When considering a building for adaptive reuse, check:

- the building's structural layout and its capacity to accommodate classrooms and other required spaces and functions;
- the energy efficiency of the building's walls, windows, and roof;
- the building's potential for meeting building, heath, safety, and accessibility requirements;
- the condition of mechanical, plumbing, and electrical systems and their capacity for modification;
- for the presence of hazardous materials;
- the ability of the building and site to provide a safe and secure environment;
- the convenience and safety of the building's location for the students and communities served, and all applicable real estate and property management issues.

- The structure and site must be safe and sound.
- The building must be adaptable enough to support the proposed educational program and provide a high quality, modern learning environment.

Because of their nontraditional nature, adaptive reuse projects provide an excellent opportunity for thinking and working outside the box, becoming what Bingler calls "community learning centers" that support programs for children, adults, and educators or serve as anchors for a broader plan of urban revitalization. Nair sees opportunities to create new types of classrooms and other spaces that incorporate special areas for individualized learning and collaborative teaching.

Adaptive reuse projects also are being used to house off-campus programs. The architect and planner Roy Strickland promotes the idea of "cities of learning," where small, academy-like schools are established in urban centers by using existing buildings to create a new kind of city campus.

The imaginative thinking employed in adaptive reuse projects goes beyond architectural design to creative problem solving. When the school district in Wake County purchased and transformed a former scientific research and development facility into a middle school in just twelve months, the project team set precedents at the state and local levels for fast-track project management and collaboration among the government agencies, contractors, designers, educators, and facilities staff. When rural school districts in New Hampshire, North Carolina, and Virginia needed additional space for school programs, they worked with their communities to secure school space in local buildings.

Some Reuse Projects Won't Work

Some projects that seem perfect turn out not to be. The Miami-Dade County School District, the fourth largest in the country, and the Detroit Public School District, the tenth largest, were hoping to convert hospitals into high schools. In both instances, however, the buildings were deemed structurally inappropriate. Halls and stairwells at Mt. Sinai Hospital in Detroit, for example, were too narrow to permit the circulation required for class changes, and the building's structural columns were too closely spaced to create adequately sized classrooms. Detroit razed the hospital but kept the land to build a new high school. Miami-Dade County reached a similar conclusion about converting its hospital to a school and rejected a second adaptive reuse possibility—an office building—because of zoning and other problems.

Some Reuse Projects Haven't Worked

In a former downtown office building in Midland, Texas, the Midland Senior High School's Excel Campus houses a program for at-risk students as well as specialized art, computer, and vocational classes. The building is located in the heart of town, just one block from the high school, and its small classes fit well within the building's layout. But the site is accessible only by crossing a busy urban thoroughfare. After a tragic pedestrian accident, the district decided to abandon the building as soon as an expansion of the high school is completed.

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Opportunity Knocks in Phoenix, Arizona

Opportunities for adaptive reuse can develop in many ways. In the Cartwright School District, a low-income section of Phoenix, Arizona, the opportunity came from John F. Long, a developer and local philanthropist. In the 1950s, Long developed the Maryvale neighborhood and nearby Maryvale Mall. The mall was vacant through much of the mid-1990s, its anchor tenants having moved to newer, more prosperous suburbs and its smaller shopkeepers to more affordable locations. But the mall remained a valuable property, offering plenty of space and a structure in good condition.

At a market value of $17 million for about 320,000 square feet of building and twenty-five acres of land, Maryvale Mall was too costly for the Cartwright School District. Long reduced the price of the classic 1958 shopping center to $9 million, with the caveat that its exterior be preserved. The school district agreed to this condition and purchased the property.

The Maryvale Mall has since become a complex of diverse educational and community facilities, including:

- the 1000-student Marc T. Atkinson Middle School, completed in 2000;
- the 600-student Bret R. Tarver Elementary School, completed in 2001;
- transitional space for other district schools being renovated;
- a physical education facility in the mall's former skating rink;
- playgrounds and athletic fields on the mall's former grounds and parking areas;
- a school-district warehouse in the mall's former bowling alley;
- a planned performing arts center and auditorium in the mall's former movie theater.

Rick Conrad, Cartwright School District's assistant superintendent and business manager, describes the 17,900-student district as a landlocked part of Phoenix that had changed demographically over two decades as retirees left and young families moved in. Although little new housing was being built in the area—a common predictor of enrollment increases—Maryvale's single-family houses had become multifamily dwellings, and the influx of new children had created a school enrollment spike.

As in other established urban areas, no undeveloped or affordable land existed for building new schools. For the school district, Maryvale Mall's availability and Long's philanthropy made adaptive reuse a realistic option. Moreover, two converging circumstances actually made it possible: pressure to improve and expand school facilities in poor Arizona school districts and a new source of state funding for educational facilities, the outcome of a lawsuit against Arizona's school funding system. More work was required, however, to prove the project was feasible.

When Conrad began working for the Cartwright School District in July 1997, it hadn't built a new school in twenty years. As Conrad saw it, the Maryvale project could provide space for two new schools and help introduce modern management practices to the district's facilities department, beginning with a thorough "due diligence" analysis of property and structures prior to design and construction. Because the mall was among the first large-scale adaptive reuse school conversions in the country, there were no "best practices" to guide the Maryvale Mall evaluation. The school district's facilities team had to learn by doing.

The facilities team for the Maryvale project included educators and facility staff for assessing the adaptability of the space to the educational programs; attorneys for reviewing real estate, liability, and finance issues; and engineers and architects for reviewing the project's architectural, engineering, and environmental issues and verifying the accuracy of the project's budget. It took ten months for the team to confirm that the structure was sound, that the conversion was practical, and that the millions of dollars committed to the project would be well spent.

The facilities team found that a combination of state and local funds could pay for converting parts of the shopping center into two schools as well as a school district warehouse and an athletic facility, without the need for a bond referendum or additional local financing. This paved the way for a property purchase agreement, signed in May 1998.

Due diligence also helped the team become more savvy managers. By the time the property was purchased, the project had momentum. "Reconfiguring the vast empty space of the former mall was essentially equivalent to a tenant improvement project," Conrad said. Still, the job was complex. Conrad saw the need for in-house oversight to represent the district's interests and respond

Hermit Crabs and Adaptive Reuse in Rural Districts

Barbara Kent Lawrence (2003), a writer and specialist in small and rural schools, points out that rural school districts routinely reuse and adapt available buildings to their needs, rather like hermit crabs, because financing new schools is often too difficult, particularly for small numbers of students.

For its expanding vocational and business programs, Littleton High School in Littleton, New Hampshire, found space in buildings throughout the community, taking over an empty furniture store, sharing space with a local business, and moving a technology program into extra space at a bank. The school district is considering converting the old city hall for school use, too. Elsewhere, public and charter schools are moving into unconventional spaces, such as former military bases.

quickly to the demolition, design, and construction challenges typical of a reuse project. As a result, he designated a high-level official, the director of the facilities department, as project manager.

Transforming the mall into a school presented certain anticipated problems, such as Long's requirement to preserve the mall's exterior. Because windows could not be added, skylights were installed to provide more natural light, and colorful interior designs were used to transform interior passageways into child-friendly corridors. Unexpected problems, such as roof defects and unevenness in a portion of the concrete floor slab, also had to be addressed. Contractors replaced the roof and leveled the floor. But these were minor issues in a project that succeeded in providing one of Arizona's poorest school districts with state-of-the-art educational facilities. Converting the vacant mall into a vibrant multiuse educational complex changed the face of the community.

Good Timing and Teamwork in Wake County, North Carolina

In Wake County, North Carolina, the school district's conversion of an office and scientific research facility into the Lufkin Road Middle School is a story with four essential elements: good timing, innovative teamwork, a single prime contractor, and cooperation among local government agencies.

Wake County is part of the rapidly urbanizing area around Raleigh. The Wake County Public School System (WCPSS) is the twenty-seventh largest school district in the country, with about 98,000 students, 122 schools, and 536 mobile classrooms. Even with its billion-dollar building program and more than fifty new schools completed over the last ten years, overcrowding is severe, with the student population growing by nearly 4,000 students annually.

In 1998, WCPSS undertook the adaptive reuse of the vacant American Sterilizer Company facility near the town of Apex. The 150,000-square-foot complex included an architecturally striking glass and granite office building and an adjoining scientific research and development building located on a site of nearly twenty-three acres. The complex hardly looked like a typical school.

Clint Jobe, WCPSS director of real estate services, said a broker had approached him several times about buying the complex, but the district had no need for it—until the summer of 1997. Apex High School was going to be renovated the following year, displacing 800 ninth graders. Transferring them to other crowded schools was not an option, nor was using mobile classrooms. The American Sterilizer complex satisfied Jobe's key criteria for considering adaptive reuse: a new school building was needed quickly; the proposed facility was suitable, well built, and well located; and it was available and affordable.

Once a preliminary feasibility study confirmed the building's adaptability, the project was put on a fast track. In Wake County, a typical school construction project requires about two and one-half years—twelve months for design, district approval, and the selection of multiple prime contractors; and eighteen months for construction. This project had to be completed in nine months. Selecting and managing multiple contractors would be time consuming, and Wake County's contractors already were overextended. What the school system needed was a single prime contractor that could be completely focused on the project and had the authority to select equally committed subcontractors. Such a fast-track

school facility plan, using a single prime contractor, never had been attempted in North Carolina's public school construction.

Christina Lighthall, WCPSS's senior director of facility planning and construction, immediately began a due diligence assessment of the American Sterilizer complex that included a structural and architectural analysis as well as inspections of the roof and the mechanical, plumbing, and electrical systems. The building had to serve as more than just temporary space. After its year as home for the Apex ninth grade, it would become the Lufkin Road Middle School, a magnet program that did not require the acreage typical of Wake County middle schools and their athletic programs.

To gain support for using the American Sterilizer facility, school board members were briefed on the need for a fast-track plan and taken on a tour of the site. WCPSS worked with state and local government agencies overseeing funding, zoning, permitting, and building safety. It then held public meetings to solicit recommendations from teachers, students, and community members on the design of classrooms, labs, and common areas.

While the architect, a renovation specialist, completed building plans and specifications, demolition contractors removed asbestos and gutted interiors. Concurrently, the school district's facilities team set about hiring a construction contractor committed to high standards of quality and capable of instituting a collaborative management plan and fast-track schedule. Once selected, the contractor had the authority to hire subcontractors based on similar commitments to quality and schedule.

Other means of meeting the nine-month project deadline included:

- purchasing and warehousing equipment and supplies in advance to avoid delivery delays;
- obtaining agreements with building and fire inspectors to respond immediately to inspection requests;
- forging a team among WCPSS staff, designers, contractors, and labor that could be responsive and punctual.

The land and buildings cost $7.5 million; design, demolition, and construction added about $13 million. Although the project's final cost was equivalent to new construction, its quick completion provided facilities in time for the new school year—a task hardly possible with new construction. A post-occupancy survey of parents and students rated the facilities as excellent.

Realizing a Vision in Pomona, California

There was nothing sudden about the need for a new school in Pomona, California. The Pomona area had its roots in agriculture, but from the 1950s through the 1980s, the defense industry fueled prosperity and population growth. Pomona's economic base moved out in the 1990s, along with its skilled workforce. Migrating in were predominantly nonskilled, non-English-speaking Hispanic families attracted by the city's affordability. Student enrollment almost doubled between 1988 and 1997, reaching about 30,000 out of a total population of about 150,000.

As in Phoenix, housing construction—the common predictor of student growth—was not a useful indicator for planning in Pomona. Single-family homes were becoming multifamily dwellings, confounding demographers and swelling school enrollments. There was substantial poverty, schools were filled well beyond capacity, and no undeveloped land existed for a typical sprawling California elementary school with large playing fields and parking lots.

Pomona did have the run-down 1957 Plaza Azteca shopping mall and parking lot, situated on about sixty-six acres of land. And, the Pomona Unified School District had produced a "An Invitation to Partnership," which included a plan to establish an innovative educational village and addressed a variety of other issues affecting education in the city, including the relationship between economic revitalization and good schools. By improving schools and offering professional enrichment and training programs, the district hoped to retain good teachers and attract new ones.

School board member Candalario Mendoza, who operated a business at the shopping mall, suggested to superintendent Patrick Leier that he consider Plaza Azteca for educational use. Leier saw the mall's potential as the site for Pomona's first educational village. Since then, the mall has become the Village @ Indian Hill. This transformation has challenged the way California schools are built and used.

The Village @ Indian Hill provides educational facilities for children and adults and leases space to businesses and nonprofit organizations. Currently, the complex houses:

State Policies and Regulations Can Change

According to Mott Smith, special projects director for the Los Angeles Unified School District, adaptive reuse has been problematic for California school districts. The state's seismic design and construction requirements for public schools, based on the Field Act, require a special review of design documents followed by inspections throughout the construction process to verify compliance. Prior to the Pomona and Santa Ana adaptive reuse projects, the Field Act requirements effectively precluded adaptive reuse by cutting off state school construction funds for noncompliant properties and making school districts vulnerable to earthquake-related liability. As an additional hurdle, California's acreage requirements for schools, as well as its funding formulas, favored new construction in outlying areas, not reuse on small urban sites.

Duwayne Brooks, director of the California Department of Education's School Facilities Planning Division, has been sympathetic to the need for change. In response to the call for adaptive reuse in Pomona and Santa Ana, the state approved a temporary measure allowing structural engineers to review seismic safety upgrades in adaptive reuse projects and certify their conformance to current seismic safety requirements. The Division of the State Architect is developing permanent regulations for the seismic evaluation of buildings not in compliance with the Field Act, and California has recently revised its regulations concerning acreage, school size, and joint-use facilities.

- the Pueblo Elementary School, three schools-within-a-school that serve more than 1,800 students;
- the Village Academy High School, with magnet programs on education, media and technology, health and medical science, and energy and transportation; the school will grow to a combined enrollment of about 400 students;
- a state-of-the-art training facility for school district educators and staff;
- a regional adult education program;
- a variety of commercial and nonprofit enterprises in a noneducational wing of the mall to support Village programs and provide community services, such as a health clinic;
- a nonprofit foundation that manages the retail section of the Village and develops new educational programs.

The Village has formed partnerships with private companies and state and federal agencies to create an applied technology classroom, a technology learning center, and training programs for adults and district educators. Partners have included the Los Angeles County Office of Education, NASA's Jet Propulsion Lab, and AT&T.

To convert Plaza Azteca to educational use, Pomona school district staff coordinated state and local lobbying efforts to revise state guidelines and procedures. The state provided a waiver for Pomona to begin work and initiated a fast-track review of the reuse design. Most of the Village @ Indian Hill complex was completed in 2001. The total cost of the project is projected to be about $50 million.

To finance the project, the district won the support of two critical state agencies, the Department of Education's School Facilities Planning Division and the Division of the State Architect. Locally, the district used California's Joint Powers Authority to buy the site for $5.5 million. It also formed the Pomona Valley Educational Foundation to lease and manage nonschool property at the Village, develop educational programs and partnerships, build an endowment to support the programs, raise money through grants, and attract equipment donations. The income generated by the leases funds the endowment and pays for security and upkeep of common areas.

The majority of funding has come from the state and from school district facility bonds. Other sources include federal Qualified Zone Academy Bonds and E-rate funds, general obligation bonds for school construction and renovation, state-funded class-size reduction incentives, state matching funds for high priority districts, California digital high school and library grants, education technology grants, and LaserNet technology literacy grants.

The Village @ Indian Hill is an award-winning example of innovative and comprehensive adaptive reuse, state and local cooperation, creative problem solving, and savvy financing. Its success has made it a model for two new villages in other sections of the city.

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Collaborative Planning in Trenton, New Jersey

> By coordinating the planning of four new schools—Monument, Jefferson/MLK, Roebling, and Twilight—with that of their surrounding neighborhoods, Trenton will become the model for "community-based school" initiatives throughout New Jersey. This initiative also addresses an essential observation by educators from John Dewey to James Comer and Howard Gardner: Healthy neighborhoods support better learning.
>
> —*Trenton Community-Based Schools Master Plan, May 2002*

Like the Pomona and Cartwright school districts, New Jersey's low-income urban school districts are located in completely developed areas of town that have high-density populations and over-capacity schools. Union City's 67,000 residents and 10,500 students occupy about 1.3 square miles, Paterson's 149,000 residents and 24,600 students occupy 8 square miles, and Trenton's 85,400 residents and 11,000 students occupy 7.7 square miles (National Center for Educational Statistics 1999-2000).

In its landmark decision *Abbott v. Burke*, the New Jersey Supreme Court designated thirty low-income urban school districts as "special-needs districts," qualified to participate in a $6-billion state-managed school construction and improvement program. To receive funding, each Abbott district, as they have come to be known, must develop a state-approved facility master plan.

One outcome of the Abbott decision was that New Jersey leaders began rethinking ways of improving education and stimulating economic recovery in the state's urban areas. This spurred a multiagency initiative led by the New Jersey Economic Development Authority to create a framework for rebuilding urban school systems and revitalizing their communities. Participating state agencies included the Department of Education, Department of Community Affairs, Office of State Planning, New Jersey Redevelopment Authority, New Jersey Brownfields, and the New Jersey Redevelopment Task Force. Among the outcomes of their work were policies regarding:

- state support of comprehensive local master plans;
- smart-growth community schools;
- "communities of learning," based on work in Paterson, where a campus of specialized academies was created in a group of historic downtown buildings.

Abbott Districts

In the school funding case of *Abbott v. Burke*, begun in 1981, with decisions and court orders continuing through 2001, the New Jersey Supreme Court awarded thirty special-needs school districts full state funding for their school renovation and construction projects. These districts are collectively referred to as Abbott districts.

The money comes from an $8.6-billion school funding package outlined in the New Jersey Educational Facilities Construction and Financing Act of July 2000. Despite consistent decisions by the New Jersey Supreme Court to correct local education funding imbalances and improve school building programs, implementation has been slow. In July 2002, New Jersey overhauled the state agency responsible for school facilities and created a new school construction program intended to provide a "streamlined corporate structure focused exclusively on school construction, greater efficiency in procurement and project management, increased district involvement in project planning, and implementation of efficient and innovative school designs."

Seizing the opportunity to improve both schools and community, the City of Trenton obtained a $225,000 state planning grant to produce a community-oriented schools master plan. Trenton's planning team included the mayor, the school superintendent, a city project manager, local department of education officials, representatives of local housing and economic planning agencies, a local architect, a "community-based schools" consultant, and an urban design firm. It took two years to complete the plan, which addressed market and economic conditions, school and community needs, funding sources, and timetables for completion.

During this time, attention began to turn to the downtown Trenton factory complex of John Roebling & Sons, the famous bridge building and engineering company. Although the complex had been empty for many years,

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Planning Grants

The ability to develop a well-thought-out community plan that has the input of local government agencies, school officials, consultants, and citizens has been a consistent factor in many successful school facilities projects, from Dry Creek and Pomona, California, to Oxford Hills, Maine. But developing a community plan is expensive and takes time. It is rarely included in a school district's budget and often must be funded independently. For instance, the support of a local foundation made Dry Creek's plan possible, and a state planning grant paid for Trenton's plan. Trenton was among the few Abbott districts to take full advantage of the state's planning grants before budget problems eliminated their funding.

Collaborative Planning in San Diego

San Diego Unified School District's chief operating officer, Lou Smith, described the traditional school planning process during an interview with New Schools/Better Neighborhoods, a California civic advocacy organization formed to promote a twenty-first century vision for California's urban school districts:

> The historic framework for building schools is to go into these areas, take about nine acres of land, displace a lot of families, and unravel some of a neighborhood's community fabric. However, in working with City Planning, the Redevelopment Agency, Price Charities, and America's Schoolhouse Council, we've found a way to use the same amount of land and not only construct a school but provide affordable housing and a commercial/retail component, including municipal service providers and two play fields. It's a win-win-win situation on that site. We're very fortunate to have a superintendent, school board, city council, mayor and...a citizens' oversight committee who are huge fans of joint-use. This, more than anything, has helped persuade staff to prioritize this collaborative way of thinking (New Schools/ Better Neighborhoods 2001).

Roy Strickland, a consulting architect and urban planner with an interest in rehabilitating historic structures, saw possibilities for converting it into a mixed-use community. His vision took form as the Roebling School Study Area and includes the Roebling complex, which Trenton plans to convert to schools for 1,200 students, school administration offices, and support facilities (Strickland 2002).

One renovated factory building will house pre-K classrooms and include an adjoining playground and outdoor courtyards. Another will house an elementary school with a cafeteria, media room, special function classroom, and playground. A third building will house a middle school, and a fourth will house administration offices, special function classroom, media center, and cafeteria. Two other buildings will house educational museums called the Invention Factory and KidsBridge.

On March 12, 2003, New Jersey Governor James McGreevey announced the Roebling project as the first of the state's school renaissance zones—places where the state will target redevelopment resources for the neighborhoods around Abbott district schools. The state school construction fund has awarded the Roebling school plan $100 million. Other state funds will go toward upgrading nearby residential neighborhoods, improving community infrastructure, and bringing in new businesses. Students will be able to walk to the Roebling schools from their neighborhoods, and parents will have ready access to educational resources. If the project works as intended, it will buttress the surrounding community and improve its economy, permanently changing the prospects for this part of Trenton.

Success through Adaptive Reuse

Phoenix, Wake County, Pomona, and Trenton are creating successful new schools and strengthening their communities through adaptive reuse, thanks to school and community leaders and staff who:

- recognize and capitalize on unusual opportunities;
- employ due diligence to determine which opportunities are sound;
- bring community leaders, educators, planners, and design professionals together to transform sound opportunities into successful outcomes;
- work with state and local governments to change policies and regulations adverse to adaptive reuse;

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- develop innovative partnerships and funding sources with other public and private entities.

Adaptive reuse is an excellent way to create valuable community resources from unproductive property, substantially reduce land acquisition and building construction costs, reinforce existing neighborhoods, and help control sprawl. And the unusual demands of adaptive reuse projects help school and community leaders develop skills and relationships that can be transferred to other endeavors, opening other avenues of opportunity for learning and community growth.

Chicago Landmark Finds New Life as a School

The Chicago Military Academy in Chicago's Bronzeville neighborhood illustrates how the best option for saving an important landmark may be to turn it into a school. The Eighth Regiment Armory, built in 1914 for the "Fighting Eighth" African-American National Guard command unit that fought in World War I, had been unoccupied since the 1950s and was dilapidated. In the 1980s, the Bronzeville community and its aldermen initiated a campaign to save the structure. In 1995, that initiative coincided with the efforts of Mayor Richard M. Daley and the Public Buildings Commission of Chicago to preserve Chicago's historic landmarks. Mayor Daley had been a proponent of the city's junior reserve officer training corps' high school programs, so the idea of transforming the armory into a military academy seemed not only thematically sound, it had strong political support. Chicago Public Schools bought the property in 1996, and $24 million was raised in city and state government funds, local and corporate donations, and federal Qualified Zone Academy Bonds. Political support also led to significant funding from some unusual sources, including the U.S. Congress and the Department of Defense. By 1999, the project was built, dedicated, and on its way to receiving numerous awards.

Examples of Adaptive Reuse

School Type	Enrollment	Original Building Use	Location
Beginning with Children School, PS 333, grades K–8	370	Pfizer research and manufacturing center	Brooklyn, New York
Bret R. Tarver Elementary School and **Marc T. Atkinson Middle School**	1,000	Maryvale Shopping Mall	Phoenix
Briarmeadow Charter School, grades K–8	550	Food processing plant	Houston
Bronzeville Junior ROTC High School	495	Historic armory	Chicago
Camino Nuevo Charter Academy, grades K–5	260	Mini-mall	Los Angeles
Center School, grades 9–12 (alternative high school)	300	Seattle Center office space	Seattle
City of Learning (3 magnet schools)	250+	Various inner city buildings	Paterson, New Jersey
East DeKalb Campus (alternative school, grades 7–12)	350	Sporting goods store (within larger shopping center purchased by district)	DeKalb, Georgia
Excel Campus, Midland Senior High School (space temporarily shared by alternative program; permanent computer, art, and vocational classrooms for high school)	120+	Office building	Midland, Texas
Gonzalo & Felicitas Mendez Fundamental Intermediate School	1,000	Homebase store	Santa Ana, California
Kindergarten		Shopping center	Warrensville, Ohio
Hayesville High School (alternative program)		VFW building	Hayesville, North Carolina
Littleton High School–Hugh Gallen Vocational Program		Furniture store, general store, and bank building	Littleton, New Hampshire
Lufkin Road Middle School	1,200	Manufacturing facility for medical supplies	Wake County Public Schools, Apex, North Carolina.
Pedro Guerrero Elementary School	700	Grocery store	Mesa, Arizona
Rocky Gap High School Annex		Honaker Church (1887)	Rocky Gap, Virginia
Saturn Riverfront Academy, grades 4–8	170	YMCA	St. Paul, Minnesota
Village @ Indian Hill, an educational complex including Pueblo Elementary School and Village Academy High School	1,200 400	Plaza Azteca Shopping Center	Pomona, California

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